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XXXIX. *Observations of the Sun's Eclipse,
16th of August, 1765, taken at Caen in
Normandy. By Nathanael Pigott, Esquire,
of Whitton, in Middlesex. Communicated
by J. Bevis, M. D. F. R. S.*

Read July 9, 1767.

Tr. Time.

	h	“	“	“	“	“	“
At	3	57	28	the seg. of the sun's illum. diam. meas.	29	38	14
	4	8	52	the distance of the horns	ditto	14	47
	4	18	39	the seg. of the illuminated diam.	ditto	27	4
	4	24	28	the distance of the horns	ditto	16	20
	4	35	47	the seg. of the illuminated diam.	ditto	27	14
	4	43	4	the distance of the horns	ditto	14	26
	4	52	38	the seg. of the illuminated diam.	ditto	29	52
	4	56	54	the distance of the horns	ditto	7	46

Sun's incl. diam. meas.	at	3	19	38	31	45	11	the mean
Ditto	—	—	3	22	10	31	42	
Sun's horiz. diam. aft.	} the Eclipse	at	5	31	33	31	41	31 43 20 of the Sun's diam. meas.
Sun's inclined diam. meas. August 15 th		at	3	53	37	31	43	

Eclipse

	h ' "		h ' "
Eclipse beg. tr. time at	3 48 16	hence the mid. was at	} 4 24 36
— end.	at 5 0 56½	and greatest	} 4 18 39
— mid.	at 4 24 36	phase obs. at	} 4 18 39
— dur.	at 1 12 40½	whence the ecl. incr. for	5 57 of
time, in which the Sun's diam. illum. decreased 36" 14"'; therefore from the Sun's diam. illuminated at			
take the decrease in		h ' "	h ' "
the diam. of the Sun at the middle		+ 5 57 = 0 36 14	+ 5 57 = 0 36 14
		4 24 36 = 26 28 21	4 24 36 = 26 28 21
which taken from the mean diam. meas.			
31' 43" 20" gives		} 5 14 59	} 5 14 59
the quantity of the eclipse, or segment of the diameter eclipsed, which is 1 digit and 59', 15 of a digit, or 1 $\frac{59}{60}$ = 2 digits nearly. This eclipse was observed with an achromatic refractor of 6 feet, and a micrometer made by Dollond. The weather very fine.			

The times, as computed from the Tables at the end of M. De la Lande's Astronomy.

	h ' "	h ' "	difference.
Beginning at	3 48 24,6	observ. at	0 8,6
Middle	4 25 11,0	3 48 16	0 35,0
End	5 1 57,2	4 24 36	1 0,7,
Duration	1 13 32,6	5 0 56,5	0 52,1

Also the latitude of the Moon was, by observation, 16" greater than the tables gave it.